



Fundamentals of
MULTINATIONAL FINANCE

Questions & Answers

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Chapter 6

The Foreign Exchange Market

1) Which of the following is NOT true regarding the market for foreign exchange?

- A) The market provides the physical and institutional structure through which the money of one country is exchanged for another.
- B) The rate of exchange is determined in the market.
- C) Foreign exchange transactions are physically completed in the foreign exchange market.
- D) All of the above are true.

2) A/An _____ is an agreement between a buyer and seller that a fixed amount of one currency will be delivered at a specified rate for some other currency.

- A) Eurodollar transaction
- B) import/export exchange
- C) foreign exchange transaction
- D) interbank market transaction

3) While trading in foreign exchange takes place worldwide, the major currency trading centers are located in

- A) London, New York, and Tokyo.
- B) New York, Zurich, and Bahrain.
- C) Paris, Frankfurt, and London.
- D) Los Angeles, New York, and London.

4) Because the market for foreign exchange is worldwide, the volume of foreign exchange currency transactions is level throughout the 24-hour day.

FALSE

5) Which of the following is NOT a motivation identified by the authors as a function of the foreign exchange market?

- A) The transfer of purchasing power between countries.
- B) Obtaining or providing credit for international trade transactions.
- C) Minimizing the risks of exchange rate changes.
- D) All of the above were identified as functions of the foreign exchange market.

6) The authors identify two tiers of foreign exchange markets:

- A) bank and nonbank foreign exchange.
- B) commercial and investment transactions.
- C) interbank and client markets.
- D) client and retail market.

7) The foreign exchange market is NOT efficient because

- A) market participants do not compete with one another due to the fact that exchange takes place around the world and not in a single centralized location.
- B) dealers have ask prices that are higher than bid prices.

C) central governments dominate the foreign exchange market and everybody knows that by definition, central governments are inefficient.

D) none of the reasons listed are accurate because the foreign exchange market is efficient.

8) Dealers in foreign exchange departments at large international banks act as market makers and maintain inventories of the securities in which they specialize.

TRUE

9) Currency trading lacks profitability for large commercial and investment banks but is maintained as a service for corporate and institutional customers.

FALSE

10) It is characteristic of foreign exchange dealers to

A) bring buyers and sellers of currencies together but never to buy and hold an inventory of currency for resale.

B) act as market makers, willing to buy and sell the currencies in which they specialize.

C) trade only with clients in the retail market and never operate in the wholesale market for foreign exchange.

D) All of the above are characteristics of foreign exchange dealers.

11) Which of the following may be participants in the foreign exchange markets?

A) bank and nonbank foreign exchange dealers

B) central banks and treasuries

C) speculators and arbitrageurs

D) All of the above.

12) _____ seek to profit from trading in the market itself rather than having the foreign exchange transaction being incidental to the execution of a commercial or investment transaction.

A) Speculators and arbitrageurs

B) Foreign exchange brokers

C) Central banks

D) Treasuries

13) In the foreign exchange market, _____ seek all of their profit from exchange rate changes while _____ seek to profit from simultaneous exchange rate differences in different markets.

A) wholesalers; retailers

B) central banks; treasuries

C) speculators; arbitrageurs

D) dealers; brokers

14) Foreign exchange _____ earn a profit by a bid-ask spread on currencies they purchase and sell. Foreign exchange _____, on the other hand, earn a profit by bringing together buyers and sellers of foreign currencies and earning a commission on each sale and purchase.

A) central banks; treasuries

B) dealers; brokers

C) brokers; dealers

D) speculators; arbitragers

15) The primary motive of foreign exchange activities by most central banks is profit.

FALSE

16) Dealers sometimes use brokers in the foreign exchange market because the dealers desire

A) speed.

B) accuracy.

C) to remain anonymous.

D) all of the above.

17) Daily trading volume in the foreign exchange market was about _____ per _____ in 2007.

A) \$3,200 billion; month

B) \$1,000 billion; month

C) \$3,200 billion; day

D) \$1,000 billion; day

18) Daily trading volume of foreign exchange had actually decreased in 2004 from the levels reported in 2001.

FALSE

19) _____ are NOT one of the three categories reported for foreign exchange.

A) Spot transactions

B) Swap transactions

C) Strip transactions

D) Futures transactions

20) Foreign exchange swaps were larger in 1998 than in 2001. The Bank for International Settlements attributes this to

A) the introduction of the euro.

B) growing electronic brokering in the spot interbank market.

C) consolidation in general.

D) all of the above.

21) The greatest amount of foreign exchange trading takes place in the following three cities:

A) New York, London, and Tokyo.

B) New York, Singapore, and Zurich.

C) London, Frankfurt, and Paris.

D) London, Tokyo, and Zurich.

22) The four currencies that constitute about 80% of all foreign exchange trading are

A) U.K pound, Chinese yuan, euro, and Japanese yen.

B) U.S. dollar, euro, Chinese yuan, and U.K. pound.

C) U.S. dollar, Japanese yen, euro, and U.K. pound.

D) U.S. dollar, U.K. pound, yen, and Chinese yuan.

23) A _____ transaction in the foreign exchange market requires an almost immediate delivery of foreign exchange.

A) spot

B) forward

C) futures

D) none of the above

24) A _____ transaction in the foreign exchange market requires delivery of foreign exchange at some future date.

A) spot

B) forward

C) swap

D) currency

25) A spot transaction in the interbank market for foreign exchange would typically involve a two-day delay in the actual delivery of the currencies, while such a transaction between a bank and its commercial customer would not necessarily involve a two-day wait.

TRUE

26) A forward contract to deliver British pounds for U.S. dollars could be described either as _____ or _____.

A) buying dollars forward; buying pounds forward

B) selling pounds forward; selling dollars forward

C) selling pounds forward; buying dollars forward

D) selling dollars forward; buying pounds forward

27) A common type of swap transaction in the foreign exchange market is the _____ where the dealer buys the currency in the spot market and sells the same amount back to the same bank in the forward market.

A) "forward against spot"

B) "forspot"

C) "repurchase agreement"

D) "spot against forward"

28) Swap and forward transactions account for an insignificant portion of the foreign exchange market.

FALSE

29) The _____ is a derivative forward contract that was created in the 1990s. It has the same characteristics and documentation requirements as traditional forward contracts except that they are only settled in U.S. dollars and the foreign currency involved in the transaction is not delivered.

A) Non-deliverable forward

B) dollar only forward

C) virtual forward

D) internet forward

30) Which of the following is NOT true regarding non deliverable forward (NDF) contracts?

A) NDFs are used primarily for emerging market currencies.

B) Pricing of NDFs reflects basic interest rate differentials plus an additional premium charged for dollar settlement.

C) NDFs can only be traded by central banks.

D) All of the above are true.

31) A foreign exchange _____ is the price of one currency expressed in terms of another currency. A foreign exchange _____ is a willingness to buy or sell at the announced rate.

A) quote; rate

B) quote; quote

C) rate; quote

D) rate; rate

32) Most foreign exchange transactions are through the U.S. dollar. If the transaction is expressed as the foreign currency per dollar this known as _____ whereas _____ are expressed as dollars per foreign unit.

A) European terms; indirect

B) American terms; direct

C) American terms; European terms

D) European terms; American terms

33) The following is an example of an American term foreign exchange quote:

A) \$20/£.

B) 0.85 euro/\$.

C) 100¥/euro.

D) None of the above.

34) The European and American terms for foreign currency exchange are square roots of one another.

FALSE

35) With several exceptions, most interbank quotes are stated in European terms (meaning foreign currency unit per U.S. dollar).

TRUE

36) American and British meanings differ for the word billion. Therefore, when traders refer to an American billion, they call it a/an _____.

A) Kiwi

B) Loony

C) Uncle Sam

D) Yard

37) Major exceptions to using European terms in foreign exchange include

A) trading yen and euros.

B) pounds and euros.

- C) Mexican Pesos and euros.
D) all of the above.

38) From the viewpoint of a British investor, which of the following would be a direct quote in the foreign exchange market?

- A) SF2.40/£
B) \$1.50/£
C) £0.55/euro
D) \$0.90/euro

39) A/an _____ quote in the United States would be foreign units per dollar, while a/an _____ quote would be in dollars per foreign currency unit.

- A) direct; direct
B) direct; indirect
C) indirect; indirect
D) indirect; direct

40) If the direct quote for a U.S. investor for British pounds is \$1.43/£, then the indirect quote for the U.S. investor would be _____ and the direct quote for the British investor would be _____.

- A) £0.699/\$; £0.699/\$
B) \$0.699/£; £0.699/\$
C) £1.43/£; £0.699/\$
D) £0.699/\$; \$1.43/£

41) _____ make money on currency exchanges by the difference between the _____ price, or the price they offer to pay, and the _____ price, or the price at which they offer to sell the currency.

- A) Dealers; ask; bid
B) Dealers; bid; ask
C) Brokers; ask; bid
D) Brokers; bid; ask

TABLE 6.1

Use the table to answer following question(s).

| | Yen: Spot and Forward (¥/\$) | | | Pound: Spot and Forward (\$/£) | | |
|---------------|------------------------------|--------|--------|--------------------------------|--------|--------|
| | Mid Rates | Bid | Ask | Mid Rates | Bid | Ask |
| Spot | 129.87 | 129.82 | 129.92 | 1.4484 | 1.4481 | 1.4487 |
| Forward Rates | | | | | | |
| 1 month | 129.68 | -20 | -18 | 1.4459 | -26 | -24 |
| 6 months | 128.53 | -136 | -132 | 1.4327 | -160 | -154 |
| Swaps | | | | | | |
| 2 year | 117.65 | 1232 | 1212 | 1.4250 | -238 | -230 |
| 3 year | 115.50 | 1452 | 1422 | 1.4225 | -265 | -253 |

42) Refer to Table 6.1. The current spot rate of dollars per pound as quoted in a newspaper is _____ or _____.

- A) £1.4484/\$; \$0.6904/£
- B) \$1.4481/£; £0.6906/\$
- C) \$1.4484/£; £0.6904/\$
- D) £1.4487/\$; \$0.6903/£

43) Refer to Table 6.1. The one-month forward bid price for dollars as denominated in Japanese yen is _____.

- A) -¥20
- B) -¥18
- C) ¥129.74/\$
- D) ¥129.62/\$

44) Refer to Table 6.1. The ask price for the two-year swap for a British pound is _____.

- A) \$1.4250/£
- B) \$1.4257/£
- C) -\$230
- D) -\$238

45) Refer to Table 6.1. According to the information provided in the table, the 6-month yen is selling at a forward _____ of approximately _____ per annum. (Use the mid rates to make your calculations.)

- A) discount; 2.09%
- B) discount; 2.06%
- C) premium; 2.09%
- D) premium; 2.06%

46) Refer to Table 6.1. Cross rates

- A) are often reported in the form of a matrix in the financial newspapers.
- B) can be used to check on opportunities for intermarket arbitrage.
- C) for the spot market in the table are $^5188.10/3$ (using the mid rates).
- D) are all of the above.

47) Given the following exchange rates, which of the multiple-choice choices represents a potentially profitable intermarket arbitrage opportunity?

¥129.87/\$ euro 1.1226/\$ euro 0.00864/¥

- A) ¥115.69/euro
- B) ¥114.96/euro
- C) \$0.8908/euro
- D) \$0.0077/¥

48) For arbitrage opportunities to be practical,

- A) participants must have instant access to quotes.
- B) participants must have instant access to executions.

C) bank traders must be able to execute the arbitrage trades without an initial sum of money relying on their bank's credit standing.

D) all of the above must be true.

49) The U.S. dollar suddenly changes in value against the euro moving from an exchange rate of \$0.8909/euro to \$0.08709/euro. Thus, the dollar has _____ by _____.

A) appreciated; 2.30%

B) depreciated; 2.30%

C) appreciated; 2.24%

D) depreciated; 2.24%

50) When the cross rate for currencies offered by two banks differs from the exchange rate offered by a third bank, a triangular arbitrage opportunity exists.

TRUE

51) Most transactions in the interbank foreign exchange trading are primarily conducted via telecommunication techniques and little is conducted face-to-face.

TRUE

52) Global daily foreign exchange turnover (combined swaps, spot, and forward transactions) has declined from roughly \$1,500 billion in 2001, to \$1,200 in 2004, to \$1,000 in 2007.

FALSE

53) Given the following pair wise exchange rates, estimate the cross-rate of pounds per euro.

\$0.8410/£ \$1.2223/euro

A) £1.000/euro

B) £1.5062/euro

C) £0.6639/euro

D) euro 1.5062/£

54) Given the following quotations (where the dollar is the home currency), what is the annualized forward premium (discount) on the U.S. dollar?

Spot rate: \$1.305/euro 6-month forward rate: \$1.335/euro

A) premium; 4.4944%

B) premium; 4.5977%

C) discount; 4.4944%

D) discount; 4.5977%

55) The article in the text about an intern's first day on the job as a currency trader relates how what he/she had learned in business school had very little to do with how trading decisions were made on the floor of the exchange.

TRUE

56) The Continuous Linked Settlement system (CLS) links with the Real-Time Gross Settlement (RTGS) systems and is expected to eventually result in same-day settlement rather than the current two-day settlement required for foreign exchange spot market transactions.

TRUE

57) Currency trading increased tremendously between 2004 and 2007 with daily trading volume jumping from \$1.9 trillion to \$3.2 trillion. Which of the following do experts think was a major driving force behind the increased daily volume?

- A) Increased activity by specialized investment groups such as hedge funds
- B) Institutional investors holding more internationally diversified portfolios thus requiring more currency transactions
- C) Increased use of technical computer-based trading

D) all of the above

58) New York City has the greatest volume of foreign exchange activity in the world.

FALSE

59) The greatest amount of foreign exchange trading takes place in the following three cities:

- A) New York, London, and Tokyo.
- B) New York, Singapore, and Zurich.
- C) London, Frankfurt, and Paris.
- D) London, Tokyo, and Zurich.

60) Although the "big three" (dollar, euro, and yen) continue to dominate global trades, it will probably not be long before a fourth, not yet on the map—the Chinese renminbi—will move into greater prominence.

TRUE

61) A _____ transaction in the foreign exchange market requires an almost immediate delivery of foreign exchange.

- A) spot
- B) forward
- C) futures
- D) none of the above

62) The three currencies that dominate foreign exchange trading are _____.

- A) U.K. pound, Chinese yuan, and Japanese yen
- B) U.S. dollar, Chinese yuan, and U.K. pound
- C) U.S. dollar, Japanese yen, and the euro
- D) U.S. dollar, U.K. pound, and Japanese yen

Essay Questions:

What are some of the reasons central banks and treasuries enter the foreign exchange markets, and in what important ways are they different from other foreign exchange participants?

Central banks and treasuries enter the foreign exchange market to acquire/spend their own foreign exchange reserves and to influence the price at which their own currency is traded. Unlike other market participants, they are not profit oriented. Instead, they may willingly take a loss if they think it is in their best national interest.

Define spot, forward, and swap transactions in the foreign exchange market and give an example of how each could be used.

Spot transactions are exchanging one currency for another right now. Spot transactions are typically entered into because the parties need to exchange foreign currencies that they have received into their domestic currency, or because they have an obligation that requires them to obtain foreign currency.

Forward foreign exchange transactions are agreements entered into today to exchange currencies at a particular price at some point in the future. Forwards may be speculative or a hedge against unexpected changes in the price of the other currency.

Swaps are the simultaneous purchase and sale of a given amount of a foreign exchange for two different dates. Both transactions are conducted with the same counterparty. A swap may be considered a technique for borrowing another currency on a fully collateralized basis.

The foreign exchange market has expanded significantly in the last 20 years. What is the volume of swap, forward, and spot transactions in the market as of the most recent survey data (April 2010)?

The total market has grown from approximately \$500 billion per day in 1989 to over \$3.7 trillion in 2010. Daily spot transactions (\$1.5 trillion) are now exceeded by daily Swap transactions (\$1.76 trillion). Forward transactions are comparatively small at .475 trillion. However, that is a 30% increase from the previous survey and this market is growing faster than foreign exchange transactions as a whole (21%)

Foreign exchange quotes are often confusing. Define these terms and then identify the types of quotes that follow. Direct quote, indirect quote, American terms, European terms

EUR0.686 = USD1, this quote found in Frankfurt, Germany

USD1.4577 = EUR1.0, this quote found in San Francisco, California

Think of direct quotes as "per dollar" in the US or, more broadly as foreign units per domestic unit. The second sample quote is a direct quote in the US. (American terms)

Indirect quotes may be thought of as "dollars per" or domestic currents per one unit of the foreign currency. , The first sample quote is an indirect quote in Germany where the euro is the domestic currency. (European terms)

American terms are quoted in "dollars per" and European terms are quoted as "per dollar".

Chapter 7

International Parity Conditions

1) If an identical product can be sold in two different markets, and no restrictions exist on the sale or transportation costs, the product's price should be the same in both markets. This is known as

- A) relative purchasing power parity.
- B) interest rate parity.
- C) the law of one price.
- D) equilibrium.

2) _____ states that the spot exchange rate is determined by the relative prices of similar baskets of goods.

- A) Absolute purchasing power parity
- B) Relative purchasing power parity
- C) Interest rate parity
- D) The Fisher Effect

3) The Economist publishes annually the "Big Mac Index" by which they compare the prices of the McDonald's Corporation's Big Mac hamburger around the world. The index estimates the exchange rates for currencies based on the assumption that the burgers in question are the same across the world and therefore, the price should be the same. If a Big Mac costs \$3.73 in the United States and 320 yen in Japan, what is the estimated exchange rate of yen per dollar as hypothesized by the Hamburger index?

- A) \$0.015/¥
- B) 87.2¥/\$
- C) \$0.00012/¥
- D) 85.5¥/\$

4) If the current exchange rate is 113 Japanese yen per U.S. dollar, the price of a Big Mac hamburger in the United States is \$3.41, and the price of a Big Mac hamburger in Japan is 280 yen, then other things equal, the Big Mac hamburger in Japan is _____.

- A) correctly priced
- B) under priced
- C) over priced
- D) not enough information to determine if the price is appropriate or not

5) The price of a Big Mac in the U.S. is \$3.73 and the price in Mexico is Peso 32.0. What is the implied PPP of the peso per dollar?

- A) Peso 8.58/\$1
- B) Peso 10.8/\$1
- C) Peso 11.76/\$1
- D) None of the above

6) The implied PPP rate of exchange of Mexican pesos per U.S. dollar is 8.58 according to the Big Mac Index. The current exchange rate is Peso 10.8/\$1. Thus, according to PPP and the Law of One Price, at the current exchange rate the peso is _____.

- A) overvalued

B) undervalued

C) correctly valued

D) not enough information to answer this question

7) According to the Big Mac Index, the implied PPP exchange rate is Mexican Peso 8.58/\$1 but the actual exchange rate is Peso 11.80/\$1. Thus, at current exchange rates the peso appears to be _____ by _____.

A) overvalued; approximately 21%

B) overvalued; approximately 27%

C) undervalued; approximately 21%

D) undervalued; approximately 27%

8) If a market basket of goods cost \$100 in the US and 70 euros in France, then the PPP exchange rate would be \$.70/euro.

FALSE

9) If according to the law of one price if the current exchange rate of dollars per British pound is \$1.75/£, then at an exchange rate of \$1.85/£, the dollar is _____.

A) overvalued

B) undervalued

C) correctly valued

D) unknown relative valuation

10) Generally speaking, the theory of absolute purchasing power parity works better for a market basket of goods than for a single good.

TRUE

11) Other things equal, and assuming efficient markets, if a Honda Accord costs \$21,375 in the U.S. then at an exchange rate of \$1.63/£, the Honda Accord should cost _____ in Great Britain.

A) £21,375

B) £18,365

C) £13,113

D) £42,322

12) The assumptions for absolute PPP are more rigid than the assumptions for relative PPP.

TRUE

13) _____ states that differential rates of inflation between two countries tend to be offset over time by an equal but opposite change in the spot exchange rate.

A) The Fisher Effect

B) The International Fisher Effect

C) Absolute Purchasing Power Parity

D) Relative Purchasing Power Parity

14) One year ago the spot rate of U.S. dollars for Canadian dollars was \$1/C\$1. Since that time the rate of inflation in the U.S. has been 4% greater than that in Canada. Based on the theory of Relative PPP, the current spot exchange rate of U.S. dollars for Canadian dollars should be approximately _____.

A) \$0.96/C\$

B) \$1/C\$1

C) \$1.04/C\$1

D) Relative PPP provides no guide for this type of question.

15) Empirical tests fail to conclusively demonstrate that PPP is an accurate predictor of future exchange rates.

TRUE

16) Two general conclusions can be made from the empirical tests of purchasing power parity (PPP):

A) PPP holds up well over the short run but poorly for the long run and the theory holds better for countries with relatively low rates of inflation.

B) PPP holds up well over the short run but poorly for the long run and the theory holds better for countries with relatively high rates of inflation.

C) PPP holds up well over the long run but poorly for the short run and the theory holds better for countries with relatively low rates of inflation.

D) PPP holds up well over the long run but poorly for the short run and the theory holds better for countries with relatively high rates of inflation.

17) A country's currency that strengthened relative to another country's currency by more than that justified by the differential in inflation is said to be _____ in terms of PPP.

A) overvalued

B) over compensating

C) undervalued

D) under compensating

18) If a country's real effective exchange rate index were to be less than 100, this would suggest an _____ currency.

A) overvalued

B) over compensating

C) undervalued

D) under compensating

19) If we set the real effective exchange rate index between Canada and the United States equal to 100 in 1998, and find that the U.S. dollar has risen to a value of 112.6, then from a competitive perspective the U.S. dollar is

A) overvalued.

B) undervalued.

C) very competitive.

D) There is not enough information to answer this question.

20) If we set the real effective exchange rate index between the United Kingdom and the United States equal to 100 in 2010, and find that the U.S. dollar has changed to a value of 91.4, then from a competitive perspective the U.S. dollar is _____.

- A) overvalued
- B) undervalued**
- C) equally valued
- D) There is not enough information to answer this question.

21) The government just released international exchange rate statistics and reported that the real effective exchange rate index for the U.S. dollar vs the Japanese yen decreased from 105 last year to 95 currently and is expected to fall still further in the coming year. Other things equal U.S. _____ to/from Japan think this is good news and U.S. _____ to/from Japan think this is bad news.

- A) importers; exporters
- B) importers; importers
- C) exporters; exporters
- D) exporters; importers**

22) Exchange rate pass-through may be defined as

- A) the bid/ask spread on currency exchange rate transactions.
- B) the degree to which the prices of imported and exported goods change as a result of exchange rate changes.**
- C) the PPP of lesser-developed countries.
- D) the practice by Great Britain of maintaining the relative strength of the currencies of the Commonwealth countries under the current floating exchange rate regime.

23) Phillips NV produces DVD players and exports them to the United States. Last year the exchange rate was \$1.25/euro and Phillips charged 120 euro per player in Euroland and \$150 per DVD player in the United States. Currently the spot exchange rate is \$1.45/euro and Phillips is charging \$160 per DVD player. What is the degree of pass through by Phillips NV on their DVD players?

- A) 92%
- B) 33.3%
- C) 41.7%**
- D) 4.1%

24) Jaguar has full manufacturing costs of their S-type sedan of £22,803. They sell the S-type in the UK with a 20% margin for a price of £27,363. Today these cars are available in the US for \$44,600 which is the UK price multiplied by the current exchange rate of \$1.63/£. Jaguar has committed to keeping the US price at \$44,600 for the next six months. If the UK pound appreciates against the USD to an exchange rate of \$1.75/£, and Jaguar has not hedged against currency changes, what is the amount the company will receive in pounds at the new exchange rate?

- A) £22,803
- B) £25,487**
- C) £27,363
- D) £44,600

25) Consider the price elasticity of demand. If a product has price elasticity less than one it is considered to have relatively elastic demand.

FALSE

28) _____ states that nominal interest rates in each country are equal to the required real rate of return plus compensation for expected inflation.

- A) Absolute PPP
- B) Relative PPP
- C) The Law of One Price
- D) The Fisher Effect

29) In its approximate form the Fisher effect may be written as _____, where: i = the nominal rate of interest, r = the real rate of return, and π = the expected rate of inflation.

- A) $i = (r)(\pi)$
- B) $i = r + \pi + (r)(\pi)$
- C) $i = r + \pi$
- D) $i = r + 2\pi$

30) The final component of the equation for the Fisher Effect, $(r)(\pi)$, where r = the real rate of return and π = the expected rate of inflation, is often dropped from the equation because the number is simply too large for most Western economies.

Answer: FALSE

31) Assume a nominal interest rate on one-year U.S. Treasury Bills of 3.10% and a real rate of interest of 1.00%. Using the Fisher Effect Equation, what is the approximate expected rate of inflation in the U.S. over the next year?

- A) 2.10%
- B) 2.05%
- C) 2.00%
- D) 1.90%

32) Assume a nominal interest rate on one-year U.S. Treasury Bills of 3.80% and a real rate of interest of 2.00%. Using the Fisher Effect Equation, what is the exact expected rate of inflation in the U.S. over the next year?

- A) 1.84%
- B) 1.80%
- C) 1.76%
- D) 1.72%

33) Empirical studies show that the Fisher Effect works best for short-term securities.

TRUE

34) The relationship between the percentage change in the spot exchange rate over time and the differential between comparable interest rates in different national capital markets is known as _____.

- A) absolute PPP
- B) the law of one price
- C) relative PPP
- D) the international Fisher Effect

35) According to the international Fisher Effect, if an investor purchases a five-year U.S. bond that has an annual interest rate of 5% rather than a comparable British bond that has an annual interest rate of 6%, then the investor must be expecting the _____ to _____ at a rate of at least 1% per year over the next 5 years.

- A) British pound; appreciate
- B) British pound; revalue
- C) U.S. dollar; appreciate
- D) U.S. dollar; depreciate

36) A _____ is an exchange rate quoted today for settlement at some time in the future.

- A) spot rate
- B) forward rate
- C) currency rate
- D) yield curve

37) Assume the current U.S. dollar-British spot rate is 0.6134£/\$. If the current nominal one-year interest rate in the U.S. is 2.5% and the comparable rate in Britain is 3.5%, what is the approximate forward exchange rate for 360 days?

- A) 1.42£/\$
- B) 0.6075£/\$
- C) 0.6134£/\$
- D) 0.6194£/\$

38) The current U.S. dollar-yen spot rate is 85¥/\$. If the 90-day forward exchange rate is 88 ¥/\$ then the yen is at a forward premium.

FALSE

39) The current U.S. dollar-yen spot rate is 85¥/\$. If the 90-day forward exchange rate is 88 ¥/\$ then the yen is selling at a per annum _____ of _____.

- A) premium; 1.57%
- B) premium; 6.30%
- C) discount; 3.41%
- D) discount; 13.64%

40) The premium or discount on forward currency exchange rates between any two countries is visually obvious when you plot the interest rates of each country on the same yield curve. The currency of the country with the higher yield curve should be selling at a forward discount.

TRUE

41) The theory of _____ states that the difference in the national interest rates for securities of similar risk and maturity should be equal to but opposite in sign to the forward rate discount or premium for the foreign currency, except for transaction costs.

- A) international Fisher Effect
- B) absolute PPP
- C) interest rate parity
- D) the law of one price

42) With covered interest arbitrage,

A) the market must be out of equilibrium.

B) a "riskless" arbitrage opportunity exists.

C) the arbitrageur trades in both the spot and future currency exchange markets.

D) all of the above

43) Covered interest arbitrage moves the market _____ equilibrium because _____.

A) toward; purchasing a currency on the spot market and selling in the forward market narrows the differential between the two

B) toward; investors are now more willing to invest in risky securities

C) away from; purchasing a currency on the spot market and selling in the forward market increases the differential between the two

D) away from; demand for the stronger currency forces up interest rates on the weaker security

44) Both covered and uncovered interest arbitrage are risky operations in the sense that even without default in the securities, the returns are unknown until all transactions are complete.

FALSE

45) All that is required for a covered interest arbitrage profit is for interest rate parity to not hold.

TRUE

46) If the forward rate is an unbiased predictor of the expected spot rate, which of the following is NOT true?

A) The expected value of the future spot rate at time 2 equals the present forward rate for time 2 delivery, available now.

B) The distribution of possible actual spot rates in the future is centered on the forward rate.

C) The future spot rate will actually be equal to what the forward rate predicts.

D) All of the above are true.

47) Which of the following is NOT an assumption of market efficiency?

A) Instruments denominated in other currencies are perfect substitutes for one another.

B) Transaction costs are low or nonexistent.

C) All relevant information is quickly reflected in both spot and forward exchange markets.

D) All of the above are true.

48) Empirical tests have yielded _____ evidence about market efficiency with a general consensus that developing foreign markets are _____.

A) conflicting; not efficient

B) conflicting; efficient

C) consistent; inefficient

D) None of the above

49) If exchange markets were not efficient, it would pay for a firm to spend resources on forecasting exchange rates.

TRUE

50) If the forward exchange rate is an unbiased predictor of future spot rates, then future spot rates will always be equal to current forward rates.

FALSE

51) One-year interest rates are currently 3.30% in the United States and 2.60% in "Euroland." The current spot rate between the euro and dollar is \$1.3225/euro. What is the expected spot rate in one year if the international Fisher effect holds?

A) \$1.3315/euro

B) \$1.3135/euro

C) \$1.3225/euro

D) None of the above

52) One-year interest rates are currently 2.50% in the United States and 3.70% in Great Britain. The current spot rate between the pound and dollar is \$1.9000/£. What is the expected spot rate in one year if the international Fisher effect holds?

A) \$1.9000/£

B) \$1.9222/£

C) \$1.8780/£

D) \$1.8500/£

53) When the spot and forward exchange markets are not in equilibrium as described by interest rate parity, the potential for "riskless" arbitrage profit exists. This is called _____.

A) covered interest arbitrage (CIA)

B) interest rate parity

C) the Fisher Effect

D) dancing on the head of a pin

54) According to the theory of interest rate parity, the difference in national interest rates for securities of similar risk and maturity should be _____ and _____ sign to the forward rate discount or premium for the foreign currency, except for transaction costs.

A) equal to; of the same

B) less than; of the same

C) greater than; opposite in

D) equal to; opposite in

Essay Questions

The authors state that empirical tests of purchasing power parity "have, for the most part, not proved PPP to be accurate in predicting future exchange rates." The authors then state that PPP does hold up reasonably well in two situations. What are some reasons why PPP does not accurately predict future exchange rates, and under what conditions might we reasonably expect PPP to hold?

PPP does not hold because goods and services do not move without cost between countries and markets. Often, goods and services are not perfect substitutes in every market for reasons of availability, taste, quality, and production techniques. Having said that, PPP does appear to work reasonably well over the long run and especially in countries with higher rates of inflation and underdeveloped capital markets.

The authors describe an application of uncovered interest arbitrage (UIA) known as "yen carry trade." Define UIA and describe the example of yen carry trade. Why an investor would engage in the practice of yen carry trade and is there any risk of loss or lesser profit from this investment strategy?

UIA is the practice of investors borrowing money in countries where interest rates are relatively low, converting the loan proceeds into a currency where rates are relatively high, investing at the higher rate, subsequently converting the proceeds back into the original currency to repay the proceeds from the loan and hopefully realizing a greater return from this practice than if the borrowing and investing had all taken place in the original currency.

The arbitrage is uncovered because at the time of the investment the investor does not lock in a forward exchange rate and therefore bears the risk that currency exchange rates will change in an unfavorable manner. The yen carry trade exists because rates in Japan are so very low that investors borrow yen, convert to another currency, say U.S. dollars, invest at much higher interest rates, often in default-risk free Treasury securities, then convert back to yen, repay the original loan and walk away with a significantly greater return than otherwise available. The risk in this process is neither from the investment nor from the loan. The risk is that exchange rates may change unfavorably and the investor takes a loss rather than a profit.

The Fisher Effect is a familiar economic theory in the domestic market. In words, define the Fisher Effect and explain why you think it is also appropriately applied to international markets.

Irving Fisher was an early 20th century economist who hypothesized that all market determined nominal interest rates had at least two basic components. First, a real return is required to compensate investors for postponing current consumption. This real rate is constant and unaffected by expectations about inflation. Second, an expected inflation component is required so that investors would not expect to lose purchasing power by the act of forgoing current consumption. Intuitively, if capital can move freely among international markets these same requirements must exist in each of the capital markets and the Fisher Effect would apply internationally as well as domestically.

Some forecasters believe that foreign exchange markets for the major floating currencies are "efficient" and forward exchange rates are unbiased predictors of future spot exchange rates. What are the three conditions of market efficiency as defined by the authors? What is implied by the term unbiased predictors? What does the empirical evidence have to say about the forward rate as an unbiased predictor of future spot rates?

Market efficiency assumes that:

- 1) All relevant information is quickly reflected in both the spot and forward exchange markets;
- 2) Transaction costs are low; and
- 3) Instruments denominated in different currencies are perfect substitutes for one another.

Intuitively, this means that the distribution of possible actual spot rates in the future is centered on the forward rate. The fact that it is an unbiased predictor, however, does not mean that the future spot rate will actually be equal to what the forward rate predicts. Unbiased prediction simply means that the forward rate will, on average, overestimate and underestimate the actual future spot rate in equal frequency and degree. The forward rate may, in fact, never actually equal the future spot rate.

Empirical studies of the efficient foreign exchange market hypothesis have yielded conflicting results. Nevertheless, a consensus is developing that rejects the efficient market hypothesis. It appears that the forward rate is not an unbiased predictor of the future spot rate and that it does pay to use resources to attempt to forecast exchange rates.

Chapter 8

Foreign Currency Derivatives and Swaps

1) Financial derivatives are powerful tools that can be used by management for purposes of

A) speculation.

B) hedging.

C) human resource management.

D) A and B above.

2) A foreign currency _____ contract calls for the future delivery of a standard amount of foreign exchange at a fixed time, place, and price.

A) futures

B) forward

C) option

D) swap

3) Currency futures contracts have become standard fare and trade readily in the world money centers.

TRUE

4) The major difference between currency futures and forward contracts is that futures contracts are standardized for ease of trading on an exchange market whereas forward contracts are specialized and tailored to meet the needs of clients.

TRUE

5) Which of the following is NOT a contract specification for currency futures trading on an organized exchange?

A) size of the contract

B) maturity date

C) last trading day

D) All of the above are specified.

6) About _____ of all futures contracts are settled by physical delivery of foreign exchange between buyer and seller.

A) 0%

B) 5%

C) 50%

D) 95%

7) Futures contracts require that the purchaser deposit an initial sum as collateral. This deposit is called a

A) collateralized deposit.

B) marked market sum.

C) margin.

D) settlement.

8) A speculator in the futures market wishing to lock in a price at which they could _____ a foreign currency will _____ a futures contract.

A) buy; sell

B) sell; buy

C) buy; buy

D) none of the above

9) A speculator that has _____ a futures contract has taken a _____ position.

A) sold; long

B) purchased; short

C) sold; short

D) purchased; sold

10) Peter Simpson thinks that the U.K. pound will cost \$1.43/£ in six months. A 6-month currency futures contract is available today at a rate of \$1.44/£. If Peter was to speculate in the currency futures market, and his expectations are correct, which of the following strategies would earn him a profit?

A) Sell a pound currency futures contract.

B) Buy a pound currency futures contract.

C) Sell pounds today.

D) Sell pounds in six months.

11) Jack Hemmings bought a 3-month British pound futures contract for \$1.4400/£ only to see the dollar appreciate to a value of \$1.4250 at which time he sold the pound futures. If each pound futures contract is for an amount of £62,500, how much money did Jack gain or lose from his speculation with pound futures?

A) \$937.50 loss

B) \$937.50 gain

C) £937.50 loss

D) £937.50 gain

12) Which of the following statements regarding currency futures contracts and forward contracts is NOT true?

A) A futures contract is a standardized amount per currency whereas the forward contract is for any size desired.

B) A futures contract is for a fixed maturity whereas the forward contract is for any maturity you like up to one year.

C) Futures contracts trade on organized exchanges whereas forwards take place between individuals and banks with other banks via telecom linkages.

D) All of the above are true.

13) Which of the following is NOT a difference between a currency futures contract and a forward contract?

A) The futures contract is marked to market daily whereas the forward contract is only due to be settled at maturity.

B) The counterparty to the futures participant is unknown with the clearinghouse stepping into each transaction whereas the forward contract participants are in direct contact setting the forward specifications.

C) A single sales commission covers both the purchase and sale of a futures contract whereas there is no specific sales commission with a forward contract because banks earn a profit through the bid-ask spread.

D) All of the above are true.

14) A foreign currency _____ gives the purchaser the right, not the obligation, to buy a given amount of foreign exchange at a fixed price per unit for a specified period.

- A) future
- B) forward
- C) option
- D) swap

15) A foreign currency _____ option gives the holder the right to _____ a foreign currency whereas a foreign currency _____ option gives the holder the right to _____ an option.

- A) call, buy, put, sell
- B) call, sell, put, buy
- C) put, hold, call, release
- D) none of the above

16) The writer of the option is referred to as the seller, and the buyer of the option is referred to as the holder.

TRUE

2) The price at which an option can be exercised is called the _____.

- A) premium
- B) spot rate
- C) strike price
- D) commission

17) An _____ option can be exercised only on its expiration date, whereas an _____ option can be exercised anytime between the date of writing up to and including the exercise date.

- A) American; European
- B) American; British
- C) Asian; American
- D) European; American

18) A call option whose exercise price exceeds the spot rate is said to be _____.

- A) in-the-money
- B) at-the-money
- C) out-of-the-money
- D) over-the-spot

19) A call option whose exercise price is less than the spot rate is said to be _____.

- A) in-the-money
- B) at-the-money
- C) out-of-the-money
- D) under-the-spot

20) An option whose exercise price is equal to the spot rate is said to be _____.

- A) in-the-money

- B) at-the-money
- C) out-of-the-money
- D) on-the-spot

21) Foreign currency options are available both over-the-counter and on organized exchanges.

TRUE

22) The main advantage(s) of over-the-counter foreign currency options over exchange traded options is(are)

A) expiration dates tailored to the needs of the client.

B) amounts that are tailor made.

C) client desired expiration dates.

D) all of the above.

23) As a general statement, it is safe to say that businesses generally use the _____ for foreign currency option contracts, and individuals and financial institutions typically use the _____.

A) exchange markets; over-the-counter

B) over-the-counter; exchange markets

C) private; government sponsored

D) government sponsored; private

24) All exchange-traded options are settled through a clearing house but over-the-counter options are not and are thus subject to greater _____ risk.

A) exchange rate

B) country

C) counterparty

D) none of the above

TABLE 8.1

Use the below mentioned table to answer the following question(s).

April 19, 2010, British Pound Option Prices (cents per pound, 62,500 pound contracts).

| Option & Underlying | Strike Price | Calls-Last | | | Puts-Last | | |
|------------------------|-----------------|------------|------|------|-----------|------|------|
| | | May | June | July | May | June | July |
| 1448 | 1440 | 0.88 | 1.42 | 1.42 | 0.52 | 1.06 | - |
| 1448 | 1450 | 0.42 | 1.02 | - | - | - | - |
| 1448 | 1460 | 0.20 | 0.68 | 0.72 | - | 2.32 | - |

25) Refer to Table 8.1. What was the closing price of the British pound on April 18, 2010?

A) \$1.448/£

B) £1.448/\$

C) \$14.48/£

D) None of the above

26) Refer to Table 8.1. The exercise price of _____ giving the purchaser the right to sell pounds in June has a cost per pound of _____ for a total price of _____.

- A) 1460; 0.68 cents; \$425.00
- B) 1440; 1.06 cents; \$662.50**
- C) 1450; 1.02 cents; \$637.50
- D) 1440; 1.42 cents; \$887.50

27) Refer to Table 8.1. The May call option on pounds with a strike price of 1440 means _____.

- A) \$88/£ per contract
- B) \$0.88/£
- C) \$0.0088/£**
- D) none of the above

28) The value of a European style call option is the sum of two components, the

- A) present value plus the intrinsic value.
- B) time value plus the present value.
- C) intrinsic value plus the time value.**
- D) the intrinsic value plus the standard deviation.

29) Which of the following is NOT a factor in determining the price of a currency option?

- A) the present spot rate
- B) the time to maturity
- C) the standard deviation of the daily spot price movement
- D) All of the above are factors in determining the premium price.**

30) The _____ of an option is the value if the option were to be exercised immediately. It is the options _____ value.

- A) intrinsic value; maximum
- B) intrinsic value; minimum**
- C) time value; maximum
- D) time value; minimum

31) Assume that a call option has an exercise price of \$1.50/£. At a spot price of \$1.45/£, the call option has _____.

- A) a time value of \$0.04
- B) a time value of \$0.00
- C) an intrinsic value of \$0.00**
- D) an intrinsic value of -\$0.04

32) The time value is asymmetric in value as you move away from the strike price. (i.e., the time value at two cents above the strike price is not necessarily the same as the time value two cents below the strike price.)

FALSE

33) Other things equal, the price of an option goes up as the volatility of the option decreases.

FALSE

33) The single largest interest rate risk of a firm is _____.

- A) interest sensitive securities
- B) debt service**
- C) dividend payments
- D) accounts payable

34) The most widely used reference rate for standardized quotations, loan agreements, or financial derivative valuations is the _____.

- A) Federal Reserve Discount rate
- B) federal funds rate
- C) LIBOR**
- D) one-year U.S. Treasury Bill

35) _____ is the possibility that the borrower's creditworthiness is reclassified by the lender at the time of renewing credit. _____ is the risk of changes in interest rates charged at the time a financial contract rate is set.

- A) Credit risk; Interest rate risk
- B) Repricing risk; Credit risk
- C) Interest rate risk; Credit risk
- D) Credit risk; Repricing risk**

Instruction 8.1:

For the following problem(s), consider these debt strategies being considered by a corporate borrower. Each is intended to provide \$1,000,000 in financing for a three-year period.

- ✓ Strategy #1: Borrow \$1,000,000 for three years at a fixed rate of interest of 7%.
- ✓ Strategy #2: Borrow \$1,000,000 for three years at a floating rate of LIBOR + 2%, to be reset annually. The current LIBOR rate is 3.50%
- ✓ Strategy #3: Borrow \$1,000,000 for one year at a fixed rate, and then renew the credit annually. The current one-year rate is 5%.

36) Refer to Instruction 8.1. Choosing strategy #1 will

- A) guarantee the lowest average annual rate over the next three years.
- B) eliminate credit risk but retain repricing risk.
- C) maintain the possibility of lower interest costs, but maximizes the combined credit and repricing risks.
- D) preclude the possibility of sharing in lower interest rates over the three-year period.**

37) Refer to Instruction 8.1. Choosing strategy #2 will

- A) guarantee the lowest average annual rate over the next three years.
- B) eliminate credit risk but retain repricing risk.**
- C) maintain the possibility of lower interest costs, but maximizes the combined credit and repricing risks.
- D) preclude the possibility of sharing in lower interest rates over the three-year period.

38) Refer to Instruction 8.1. Choosing strategy #3 will

- A) guarantee the lowest average annual rate over the next three years.
- B) eliminate credit risk but retain repricing risk.

C) maintain the possibility of lower interest costs, but maximizes the combined credit and repricing risks.

D) preclude the possibility of sharing in lower interest rates over the three-year period.

39) Refer to Instruction 8.1. Which strategy (strategies) will eliminate credit risk?

A) Strategy #1

B) Strategy #2

C) Strategy #3

D) Strategy #1 and #2

40) Refer to Instruction 8.1. If your firm felt very confident that interest rates would fall or, at worst, remain at current levels, and were very confident about the firm's credit rating for the next 10 years, which strategy (strategies) would you likely choose? (Assume your firm is borrowing money.)

A) Strategy #3

B) Strategy #2

C) Strategy #1

D) Strategy #1, #2, or #3, you are indifferent among the choices.

41) Refer to Instruction 8.1. The risk of strategy #1 is that interest rates might go down or that your credit rating might improve. The risk of strategy #2 is (Assume your firm is borrowing money.)

A) that interest rates might go down or that your credit rating might improve.

B) that interest rates might go up or that your credit rating might improve.

C) that interest rates might go up or that your credit rating might get worse.

D) none of the above.

42) Refer to Instruction 8.1. The risk of strategy #1 is that interest rates might go down or that your credit rating might improve. The risk of strategy #3 is (Assume your firm is borrowing money.)

A) that interest rates might go down or that your credit rating might improve.

B) that interest rates might go up or that your credit rating might improve.

C) that interest rates might go up or that your credit rating might get worse.

D) none of the above.

43) Refer to Instruction 8.1. After the fact, under which set of circumstances would you prefer strategy #1? (Assume your firm is borrowing money.)

A) Your credit rating stayed the same and interest rates went up.

B) Your credit rating stayed the same and interest rates went down.

C) Your credit rating improved and interest rates went down.

D) Not enough information to make a judgment.

44) Refer to Instruction 8.1. After the fact, under which set of circumstances would you prefer strategy #2? (Assume your firm is borrowing money.)

A) Your credit rating stayed the same and interest rates went up.

B) Your credit rating stayed the same and interest rates went down.

C) Your credit rating improved and interest rates went down.

D) Not enough information to make a judgment.

45) Refer to Instruction 8.1. After the fact, under which set of circumstances would you prefer strategy #3? (Assume your firm is borrowing money.)

- A) Your credit rating stayed the same and interest rates went up.
- B) Your credit rating stayed the same and interest rates went down.
- C) Your credit rating improved and interest rates went down.**
- D) Not enough information to make a judgment.

TABLE 8.2

Use the information for Polaris Corporation to answer the following question(s).

Polaris is taking out a \$5,000,000 two-year loan at a variable rate of LIBOR plus 1.00%. The LIBOR rate will be reset each year at an agreed upon date. The current LIBOR rate is 4.00% per year. The loan has an upfront fee of 2.00%

| Loan Interest Rates | Year 0 | Year 1 | Year 2 |
|------------------------------------|---------------|---------------|---------------|
| LIBOR (Floating) | 4.00% | 4.00% | 4.00% |
| Spread (Fixed) | 1.00% | 1.00% | 1.00% |
| Total Interest Payable | 5.00% | 5.00% | 5.00% |
| Interest Cash Flows on Loan | | | |
| LIBOR (Floating) | (\$200,000) | (\$200,000) | |
| Spread (Fixed) | (\$50,000) | (\$50,000) | |
| Total Interest | (\$250,000) | (\$250,000) | |
| Loan Proceeds (Repayment) | \$4,900,000 | | (\$5,000,000) |
| Total Loan Cash Flows | \$4,900,000 | (\$250,000) | (\$5,250,000) |

46) Refer to Table 8.2. What is the all-in-cost (i.e., the internal rate of return) of the Polaris loan including the LIBOR rate, fixed spread and upfront fee?

- A) 4.00%
- B) 5.00%
- C) 5.53%
- D) 6.09%**

47) Refer to Table 8.2. What portion of the cost of the loan is at risk of changing?

- A) the LIBOR rate**
- B) the spread
- C) the upfront fee
- D) all of the above

48) Refer to Table 8.2. If the LIBOR rate jumps to 5.00% after the first year what will be the all-in-cost (i.e. the internal rate of return) for Polaris for the entire loan?

- A) 5.25%
- B) 5.50%
- C) 6.09%
- D) 6.58%**

49) Refer to Table 8.2. If the LIBOR rate falls to 3.00% after the first year what will be the all-in-cost (i.e. the internal rate of return) for Polaris for the entire loan?

- A) 4.00%
- B) 4.50%
- C) 5.25%
- D) 5.60%

50) A/an _____ is a contract to lock in today interest rates over a given period of time.

- A) forward rate agreement
- B) interest rate future
- C) interest rate swap
- D) none of the above

51) An agreement to exchange interest payments based on a fixed payment for those based on a variable rate (or vice versa) is known as a/an _____.

- A) forward rate agreement
- B) interest rate future
- C) interest rate swap
- D) none of the above

52) An agreement to swap a fixed interest payment for a floating interest payment would be considered a/an _____.

- A) currency swap
- B) forward swap
- C) interest rate swap
- D) none of the above

53) Which of the following would be considered an example of a currency swap?

- A) exchanging a dollar interest obligation for a British pound obligation
- B) exchanging a eurodollar interest obligation for a dollar obligation
- C) exchanging a eurodollar interest obligation for a British pound obligation
- D) All of the above are example of a currency swap.

54) A firm with fixed-rate debt that expects interest rates to fall may engage in a swap agreement to

- A) pay fixed-rate interest and receive floating rate interest.
- B) pay floating rate and receive fixed rate.
- C) pay fixed rate and receive fixed rate.
- D) pay floating rate and receive floating rate.

55) A firm with variable-rate debt that expects interest rates to rise may engage in a swap agreement to

- A) pay fixed-rate interest and receive floating rate interest.
- B) pay floating rate and receive fixed rate.
- C) pay fixed rate and receive fixed rate.
- D) pay floating rate and receive floating rate.

56) A preferred interest rate swap strategy for a firm with variable-rate debt and that expects rates to go up is to

A) receive floating rate and pay fixed rate.

B) pay floating and receive fixed.

C) pay floating and pay fixed.

D) none of the above.

57) Polaris Inc. has a significant amount of bonds outstanding denominated in yen because of the attractive variable rate available to the firm in yen when the loan was made. However, Polaris does not have significant receivables in yen. Options available to Polaris to consider the risk of such a loan include which one of the following?

A) doing nothing to offset the need for yen

B) developing a currency swap of paying dollars and receiving yen

C) developing an interest rate swap of receiving a variable rate while paying a fixed rate

D) Polaris may engage in any of the strategies to a varying degree of effectiveness.

58) Which of the following would an MNE NOT want to do?

A) Pay a very low fixed rate of interest in the long term.

B) Swap into a foreign currency payment that is falling in value.

C) Swap into a floating interest rate receivable just prior to interest rates going up.

D) Swap into a fixed interest rate receivable just prior to interest rates going up.

Essay Questions:

Why are foreign currency futures contracts more popular with individuals and banks while foreign currency forwards are more popular with businesses?

Foreign currency futures are standardized contracts that lend themselves well to speculation purposes but less so for hedging purposes. The standardized nature of the futures contract makes it easy to trade futures and to make bets about general changes in the value of currencies. Forward contracts are better for hedging in that they are tailored to meet the specific needs of the client, typically a business, and can be quite useful in reducing exchange rate risk. Banks are involved in the foreign currency futures market in part to offset positions that they may have taken in the forward markets as dealers.

Compare and contrast foreign currency options and futures. Identify situations when you may prefer one vs. the other when speculating on foreign exchange.

Foreign currency futures are derivative securities that allow the holder to lock in a price today for another currency at some point in the future. The foreign currency future contract is an obligation on the part of the parties to fulfill the terms of the contract. Even if prices change in an unanticipated way, the parties are obligated to fulfill the terms of the contract. The foreign currency option contract on the other hand is a right not an obligation to purchase/sell a currency at some point in the future at a price agreed upon today. If prices change in an unexpected manner, the buyer of the contract is under no obligation to exercise the contract. Option contracts are better suited to situations where price changes are anticipated, but the direction of the change is highly uncertain.

In option valuation, total value is equal to the intrinsic value plus the time value of the option. Define the latter two terms.

Intrinsic value is the financial gain if the option is exercised immediately. The time value of an option exists because the price of the underlying currency, the spot rate, can potentially move further and further into the money before the options expiration.

How does counterparty risk influence a firm's decision to trade exchange-traded derivatives rather than over-the-counter derivatives?

With exchange-traded derivatives, the exchange is the clearinghouse. Thus, firms do not need to worry about the other party making good on its obligations and it is easier to trade the derivative products.

Your firm is faced with paying a variable rate debt obligation with the expectation that interest rates are likely to go up. Identify two strategies using interest rate futures and interest rate swaps that could reduce the risk to the firm.

Sell a futures position. If rates change the payoff from the futures position offsets the gain or loss on the variable rate debt obligation. Swap a variable rate debt obligation for a fixed futures payable contract.

Chapter 10

Transaction and Translation Exposure

1) _____ exposure deals with cash flows that result from existing contractual obligations.

- A) Operating
- B) Transaction**
- C) Translation
- D) Economic

2) _____ exposure measures the change in the present value of the firm resulting from unexpected changes in exchange rates.

- A) Operating**
- B) Transaction
- C) Translation
- D) Accounting

3) Each of the following is another name for operating exposure EXCEPT _____.

- A) economic exposure
- B) strategic exposure
- C) accounting exposure**
- D) competitive exposure

4) Transaction exposure and operating exposure exist because of unexpected changes in future cash flows. The difference between the two is that _____ exposure deals with cash flows already contracted for, while _____ exposure deals with future cash flows that might change because of changes in exchange rates.

- A) transaction; operating**
- B) operating; transaction
- C) operating; accounting
- D) none of the above

5) _____ exposure is the potential for accounting-derived changes in owner's equity to occur because of the need to translate foreign currency financial statements into a single reporting currency.

- A) Transaction
- B) Operating
- C) Economic
- D) Accounting**

6) Losses from _____ exposure generally reduce taxable income in the year they are realized. _____ exposure losses may reduce taxes over a series of years.

- A) accounting; Operating
- B) operating; Transaction
- C) transaction; Operating**
- D) transaction; Accounting

7) Losses from _____ exposure generally reduce taxable income in the year they are realized. _____ exposure losses are not cash losses and therefore, are not tax deductible.

- A) transaction; Operating
- B) accounting; Operating
- C) accounting; Transaction
- D) transaction; Translation

8) MNE cash flows may be sensitive to changes in which of the following?

- A) exchange rates
- B) interest rates
- C) commodity prices
- D) all of the above

9) _____ is a technique used by MNEs to deal with currency exposure.

- A) No counter-measure
- B) Speculation
- C) Hedging
- D) All are techniques MNEs could use.

10) Hedging, or reducing risk, is the same as adding value or return to the firm.

FALSE

11) Assuming no transaction costs (i.e., hedging is "free"), hedging currency exposures should _____ the variability of expected cash flows to a firm and at the same time, the expected value of the cash flows should _____.

- A) increase; not change
- B) decrease; not change
- C) not change; increase
- D) not change; not change

12) Which of the following is NOT cited as a good reason for hedging currency exposures?

- A) Reduced risk of future cash flows is a good planning tool.
- B) Reduced risk of future cash flows reduces the probability that the firm may not meet required cash flows.
- C) Currency risk management increases the expected cash flows to the firm.
- D) Management is in a better position to assess firm currency risk than individual investors.

13) There is considerable question among investors and managers about whether hedging is a good and necessary tool.

TRUE

14) Which of the following is cited as a good reason for NOT hedging currency exposures?

- A) Shareholders are more capable of diversifying risk than management.
- B) Currency risk management through hedging does not increase expected cash flows.
- C) Hedging activities are often of greater benefit to management than to shareholders.

D) All of the above are cited as reasons NOT to hedge.

15) The key arguments in opposition to currency hedging such as market efficiency, agency theory, and diversification do not have financial theory at their core.

FALSE

16) _____ exposure may result from a firm having a payable in a foreign currency.

A) Transaction

B) Accounting

C) Operating

D) None of the above

17) A U.S. firm sells merchandise today to a British company for £100,000. The current exchange rate is \$2.03/£ , the account is payable in three months, and the firm chooses to avoid any hedging techniques designed to reduce or eliminate the risk of changes in the exchange rate. The U.S. firm is at risk today of a loss if

A) the exchange rate changes to \$2.00/£.

B) the exchange rate changes to \$2.05/£.

C) the exchange rate doesn't change.

D) all of the above.

18) A U.S. firm sells merchandise today to a British company for £100,000. The current exchange rate is \$2.03/£ , the account is payable in three months, and the firm chooses to avoid any hedging techniques designed to reduce or eliminate the risk of changes in the exchange rate. If the exchange rate changes to \$2.05/£ the U.S. firm will realize a _____ of _____.

A) loss; \$2000

B) gain; \$2000

C) loss; £2000

D) gain; £2000

19) A U.S. firm sells merchandise today to a British company for £100,000. The current exchange rate is \$2.03/£ , the account is payable in three months, and the firm chooses to avoid any hedging techniques designed to reduce or eliminate the risk of changes in the exchange rate. If the exchange rate changes to \$2.01/£ the U.S. firm will realize a _____ of _____.

A) loss; \$2,000

B) gain; \$2,000

C) loss; £2000

D) gain; £2000

20) _____ is NOT a popular contractual hedge against foreign exchange transaction exposure.

A) Forward market hedge

B) Money market hedge

C) Options market hedge

D) All of the above are contractual hedges.

Instruction 10.1:

Use the information for the following problem(s).

Plains States Manufacturing has just signed a contract to sell agricultural equipment to Bosch, a German firm, for euro 1,250,000. The sale was made in June with payment due six months later in December. Because this is a sizable contract for the firm and because the contract is in euros rather than dollars, Plains States is considering several hedging alternatives to reduce the exchange rate risk arising from the sale. To help the firm make a hedging decision you have gathered the following information.

- ✓ The spot exchange rate is \$1.40/euro
- ✓ The six month forward rate is \$1.38/euro
- ✓ Plains States' cost of capital is 11%
- ✓ The Euro zone 6-month borrowing rate is 9% (or 4.5% for 6 months)
- ✓ The Euro zone 6-month lending rate is 7% (or 3.5% for 6 months)
- ✓ The U.S. 6-month borrowing rate is 8% (or 4% for 6 months)
- ✓ The U.S. 6-month lending rate is 6% (or 3% for 6 months)
- ✓ December put options for euro 625,000; strike price \$1.42, premium price is 1.5%
- ✓ Plains States' forecast for 6-month spot rates is \$1.43/euro
- ✓ The budget rate, or the lowest acceptable sales price for this project, is \$1,075,000 or \$1.35/euro

21) Refer to Instruction 10.1. If Plains States chooses not to hedge their euro receivable, the amount they receive in six months will be _____.

- A) \$1,750,000
- B) \$1,250,000
- C) \$892,857

D) Undeterminable today

22) Refer to Instruction 10.1. If Plains States chooses to hedge its transaction exposure in the forward market, it will _____ euro 1,250,000 forward at a rate of _____.

- A) sell; \$1.38/euro**
- B) sell; \$1.40/euro
- C) buy; \$1.38/euro
- D) buy; \$1.40/euro

23) Refer to Instruction 10.1. Plains States chooses to hedge its transaction exposure in the forward market at the available forward rate. The payoff in 6 months will be _____.

- A) \$1,750,000
- B) \$1,250,000
- C) \$1,725,000**
- D) \$1,787,500

24) Refer to Instruction 10.1. If Plains States locks in the forward hedge at \$1.38/euro, and the spot rate when the transaction was recorded on the books was \$1.40/euro, this will result in a "foreign exchange loss" accounting transaction of _____.

- A) \$0
- B) \$25,000**

- C) This was not a loss; it was a gain of \$25,000.
- D) There is not enough information to answer this question.

25) Refer to Instruction 10.1. Plains States would be _____ by an amount equal to _____ with a forward hedge than if they had not hedged and their predicted exchange rate for 6 months had been correct.

- A) better off; \$43,750
- B) better off; \$62,500
- C) worse off; \$43,750
- D) worse off; \$62,500

26) Refer to Instruction 10.1. Plains States could hedge the Euro receivables in the money market. Using the information provided, how much would the money market hedge return in six months assuming Plains States reinvests the proceeds at the U.S. investment rate?

- A) \$1,250,000
- B) \$1,724,880
- C) \$1,674,641
- D) \$1,207,371

27) Refer to Instruction 10.1. Money market hedges almost always return more than forward hedges because of the greater risk involved.

FALSE

28) Refer to Instruction 10.1. If Plains States chooses to implement a money market hedge for the Euro receivables, how much money will the firm borrow today?

- A) euro 1,201,923
- B) \$1,201,923
- C) euro 1,196,172
- D) \$1,196,172

29) Refer to Instruction 10.1. A _____ hedge allows Plains States to enjoy the benefits of a favorable change in exchange rates for their euro receivables contract while protecting the firm from unfavorable exchange rate changes.

- A) forward
- B) call option
- C) put option
- D) money market

30) Refer to Instruction 10.1. What is the cost of a put option hedge for Plains States' euro receivable contract? (Note: Calculate the cost in future value dollars and assume the firm's cost of capital as the appropriate interest rate for calculating future values.)

- A) \$27,694
- B) \$26,250
- C) euro 27,694
- D) euro 26,250

31) Refer to Instruction 10.1. The cost of a call option to Plains States would be _____.

- A) \$17,653
- B) \$16,733
- C) \$18,471

D) There is not enough information to answer this question.

32) Refer to Instruction 10.1. If Plains States purchases the put option, and the option expires in six months on the same day that Plains States receives the euro 1,250,000, the firm will exercise the put at that time if the spot rate is \$1.43/euro.

FALSE

33) The structure of a money market hedge is similar to a forward hedge. The difference is the cost of the money market hedge is determined by the differential interest rates, while the forward hedge is a function of the forward rates quotation.

TRUE

34) In efficient markets, interest rate parity should assure that the costs of a forward hedge and money market hedge should be approximately the same.

TRUE

35) Translation exposure may also be called _____ exposure.

- A) transaction
- B) operating
- C) accounting
- D) currency

36) _____ exposure is the potential for an increase or decrease in the parent company's net worth and reported net income caused by a change in exchange rates since the last transaction.

- A) Transaction
- B) Operating
- C) Currency
- D) Translation

37) Translation exposure measures

- A) changes in the value of outstanding financial obligations incurred prior to a change in exchange rates.
- B) the potential for an increase or decrease in the parent company's net worth and reported net income caused by a change in exchange rates since the last consolidation of international operations.
- C) an unexpected change in exchange rates impact on short run expected cash flows.
- D) none of the above.

38) According to your authors, the main purpose of translation is

- A) to prepare consolidated financial statements.
- B) to help management assess the performance of foreign subsidiaries.
- C) to act as an interpreter for managers without foreign language skills.

D) none of the above.

39) If the same exchange rate were used to re-measure every line on a financial statement, then there would be no imbalances from re-measuring.

TRUE

40) Historical exchange rates may be used for _____, while current exchange rates may be used for _____.

A) fixed assets and current assets; income and expense items

B) equity accounts and fixed assets; current assets and liabilities

C) current assets and liabilities; equity accounts and fixed assets

D) equity accounts and current liabilities; current assets and fixed assets

41) A foreign subsidiary's _____ currency is the currency used in the firm's day-to-day operations.

A) local

B) integrated

C) notational dollar

D) functional

42) The two basic methods for the translation of foreign subsidiary financial statements are the _____ method and the _____ method.

A) current rate; temporal

B) temporal; proper timing

C) current rate; future rate

D) none of the above

43) Exchange rate imbalances that are passed through the balance sheet affect a firm's reported income, but imbalances transferred to the income statement do not.

FALSE

44) The current rate method is the most prevalent method today for the translation of financial statements.

TRUE

45) The temporal rate method is the most prevalent method today for the translation of financial statements.

FALSE

46) Gains or losses caused by translation adjustments when using the current rate method are reported separately on the _____.

A) consolidated statement of cash flow

B) consolidated income statement

C) consolidated balance sheet

D) none of the above

47) The biggest advantage of the current rate method of reporting translation adjustments is the fact that the gain or loss goes directly to the reserve account on the consolidated balance sheet and does not pass through the consolidated income statement.

TRUE

48) Under the current rate method, specific assets and liabilities are translated at exchange rates consistent with the timing of the item's creation.

FALSE

49) Under the temporal rate method, specific assets and liabilities are translated at exchange rates consistent with the timing of the item's creation.

TRUE

50) The basic advantage of the _____ method of foreign currency translation is that foreign nonmonetary assets are carried at their original cost in the parent's consolidated statement while the most important advantage of the _____ method is that the gain or loss from translation does not pass through the income statement.

A) monetary; current rate

B) temporal; current rate

C) temporal; monetary

D) current rate; temporal

51) The current rate method of foreign currency translation gains or losses resulting from remeasurement are carried directly to current consolidated income and thus introduces volatility to consolidated earnings.

FALSE

52) The temporal method of foreign currency translation gains or losses resulting from remeasurement are carried directly to current consolidated income and thus introduces volatility to consolidated earnings.

TRUE

53) The main technique to minimize translation exposure is called a/an _____ hedge.

A) balance sheet

B) income statement

C) forward

D) translation

54) A balance sheet hedge requires that the amount of exposed foreign currency assets and liabilities

A) have a 2:1 ratio of assets to liabilities.

B) have a 2:1 ratio of liabilities to assets.

C) have a 2:1 ratio of liabilities to equity.

D) be equal.

55) If a firm's balance sheet has an equal amount of exposed foreign currency assets and liabilities and the firm translates by the temporal method, then

A) the net exposed position is called monetary balance.

B) the change of value of liabilities and assets due to a change in exchange rates will be of equal but opposite direction.

C) both A and B are true.

D) none of the above.

56) If a firm's subsidiary is using the local currency as the functional currency, which of the following is NOT a circumstance that could justify the use of a balance sheet hedge?

A) The foreign subsidiary is about to be liquidated, so that the value of its Cumulative Translation Adjustment (CTA) would be realized.

B) The firm has debt covenants or bank agreements that state the firm's debt/equity ratio will be maintained within specific limits.

C) The foreign subsidiary is operating in a hyperinflationary environment.

D) All of the above are appropriate reasons to use a balance sheet hedge.

57) A Canadian subsidiary of a U.S. parent firm is instructed to bill an export to the parent in U.S. dollars. The Canadian subsidiary records the accounts receivable in Canadian dollars and notes a profit on the sale of goods. Later, when the U.S. parent pays the subsidiary the contracted U.S. dollar amount, the Canadian dollar has appreciated 10% against the U.S. dollar. In this example, the Canadian subsidiary will record a

A) 10% foreign exchange loss on the U.S. dollar accounts receivable.

B) 10% foreign exchange gain on the U.S. dollar accounts receivable.

C) since the Canadian firm is a U.S. subsidiary neither a gain nor loss will be recorded.

D) any gain or loss will be recorded only by the parent firm.

58) _____ gains and losses are "realized" whereas _____ gains and losses are only "paper."

A) Translation; transaction

B) Transaction; translation

C) Translation; operating

D) None of the above

59) A balance sheet hedge is the main technique for managing _____.

A) transaction

B) operating

C) translation

D) money market

60) If the European subsidiary of a U.S. firm has net exposed assets of euro 500,000, and the euro drops in value from \$1.40/euro to \$1.30/euro the U.S. firm has a translation _____.

A) gain of \$50,000

B) loss of \$50,000

C) gain of \$450,000

D) loss of euro 450,000

61) If the European subsidiary of a U.S. firm has net exposed assets of euro 500,000, and the euro increases in value from \$1.30/euro to \$1.35/euro the U.S. firm has a translation _____.

- A) gain of \$25,000
- B) loss of \$25,000
- C) gain of \$525,000
- D) loss of euro 525,000

62) If a European subsidiary of a U.S. firm has net exposed liabilities of euro 500,000, and the euro drops in value from \$1.40/euro to \$1.30/euro then the U.S. firm has a translation _____.

- A) gain of \$50,000
- B) loss of \$50,000
- C) gain of \$450,000
- D) loss of euro 450,000

63) If a European subsidiary of a U.S. firm has net exposed liabilities of euro 500,000, and the euro increases in value from \$1.30/euro to \$1.35/euro then the U.S. firm has a translation _____.

- A) gain of \$25,000
- B) loss of \$25,000
- C) gain of \$525,000
- D) loss of euro 525,000

64) Using the table below, estimate the net exposure for Souris River Manufacturing of it's wholly-owned Canadian subsidiary.

Souris River Manufacturing (Canada)

Balance Sheet December 31 200X

| Assets | | Liabilities and Equity | |
|---------------|----------------|-------------------------------|----------------|
| Cash | C\$10,000 | Current Liabilities | C\$6,000 |
| Inventory | 30,000 | Long-Term Debt | 28,000 |
| Fixed Assets | <u>160,000</u> | Equity | <u>166,000</u> |
| Total Assets | C\$200,000 | Total Liabilities and Equity | C\$200,000 |

- A) C\$40,000
- B) C\$160,000
- C) C\$166,000
- D) C\$200,000

Essay Questions:

List and define the three types of foreign exchange exposure presented by your authors.

- ✓ **Transaction exposure** measures changes in the value of outstanding financial obligations incurred prior to a change in exchange rates but not due to be settled until after the exchange rates change. Thus, it deals with changes in cash flows that result from existing contractual obligations.
- ✓ **Translation exposure** is the potential for accounting-derived changes in owner's equity to occur because of the need to "translate" foreign currency financial statements of foreign subsidiaries into a single reporting currency to prepare worldwide consolidated financial statements.
- ✓ **Operating exposure**, also called economic exposure, competitive exposure, or strategic exposure, measures the change in the present value of the firm resulting from any change in future operating cash flows of the firm caused by an unexpected change in exchange rates. The change in value depends on the effect of the exchange rate change on future sales volume, prices, and costs.

Does foreign currency exchange hedging both reduce risk and increase expected value? Explain, and list several arguments in favor of currency risk management and several against.

Foreign exchange currency hedging can reduce the variability of foreign currency receivables or payables by locking in a specific exchange rate in the future via a forward contract, converting currency at the current spot rate using a money market hedge, or minimizing unfavorable exchange rate movement with a currency option. None of these hedging techniques, however, increases the expected value of the foreign currency exchange. In fact, expected value should fall by an amount equal to the cost of the hedge.

Generally, those in favor of currency risk management find value in the reduction of variability of uncertain cash flows. Those opposed to currency risk management argue the NPV of such activities are \$0 or less and that shareholders can reduce risk themselves more efficiently. For a more complete answer to this question, see page 4 where the author outlines several arguments for and against currency risk management.

The two methods for the translation of foreign subsidiary financial statements are the current rate and temporal methods. Briefly, describe how each of these methods translates the foreign subsidiary financial statements into the parent company's consolidated statements. Identify when each technique should be used and the major advantage(s) of each.

The current rate method translates almost all line items from the foreign subsidiary to the parent consolidated statements at the current exchange rate. This is the most commonly used method in the world today. Assets and liabilities are translated at current exchange rate and items found on the income statement are translated at the actual exchange rate on the date of transaction, or as an average over the statement period where appropriate. Equity accounts are translated at historical costs.

Any gains or losses caused by translation adjustments are typically placed into a special reserve account (such as a CTA). Thus, gains or losses do not go through the income statement and do not increase the volatility of net income. This is perhaps the biggest advantage to using the current rate method.

By contrast, the temporal method assumes that several individual financial statement items are periodically restated to reflect their market value. The temporal method translates individual line items based on monetary/nonmonetary criteria where monetary assets such as cash and marketable securities are translated at current exchange rates, but nonmonetary assets such as fixed assets are translated at historical rates. The gains or losses that result from translation remeasurement are recorded on the consolidated income statement and impact upon the volatility of net income. The temporal method of using historical costs may be more consistent with the practice of carrying domestic items at cost on the financial statements.

Describe a balance sheet hedge and give at least two examples of when such a hedge could be justified.

A balance sheet hedge attempts to equalize the amount of assets and liabilities of a foreign subsidiary exposed to translation risk. Thus, the gain to the firm from a change in exchange rates will be perfectly offset by an equal and opposite loss. Firms may engage in balance sheet hedges under conditions of hyperinflation, or when the subsidiary is about to be liquidated and the value of the CTA account would be realized.

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